INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

S-E-C-R-E-T

50X1-HUM

COUNTRY USSR (Moskovskaya Oblast)

REPORT

SUBJECT Airframe Plant No. 30 in Moscow

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INFORMATION REPORT INFORMATION REPORT

Airframe Plant No. 30, Moscow

Location and Identification

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1. [redacted] the Airframe Plant No. 30 on Leningradskoye shosse and Botkinskiy proyezd, Leningradskiy Rayon, Moscow, on the Moscow City Plan number 12765, Second Edition 7-57, scale 1:35,000. This plant was subordinate to the Ministry of Aviation Industry and the director of the plant was Pavel Andreyevich Voronin, a major general in the Soviet Air Force.

Refer to page 13, [redacted] sketch of the plant layout. 50X1-HUM

Point 1. Leningradskoye shosse.

Point 2. Fence. This was a wooden fence two and a half meters high topped with barbed wire. This fence enclosed the plant area on all sides except on the airfield side.

Point 3. Industrial and technical school. This was a four-story brick building, approximately 100 x 10 x 12 meters, with a sheet-metal roof. The technical school was for plant workers who wished to continue their education and acquire a trade. The workers attended the technical school on their own time after working hours, from 1800 to 2230 hours daily. After four years of study the student was given an examination referred to as "defending the diploma" and if he passed the examination successfully was given the title of a technical worker. Approximately 200 workers attended this evening technical school. [redacted] 50X1-HUM [redacted] Lectures on industrial practices were presented to the new unskilled workers of the plant who were in the 15-16 years age group. Every young worker who was a newcomer to the plant had to undergo a 3-4 weeks industrial training course outlined by the plant instructors. The courses were varied and included instructions on welding and how to operate a lathe and other machinery. During the training course students were paid 260 rubles per month, and, on completion, were given the third category pay scale and assigned to various shops within the plant.

Point 4. Shop building. This was a brick structure in the form of the letter "E", approximately 50 x 25 x 5 meters, with a sheet-metal roof. [redacted] 50X1-HUM [redacted] the preliminary work on aircraft fuselages was done here. There [redacted] the longerons fastened to bulkheads of the fuselage. From there the parts were sent to another subassembly line. The machinery used in this shop consisted mainly of riveting hammers.

Point 4a. Administrative building. This was a brick structure three stories high, approximately 60 x 10 x 9 meters. [redacted] on the first floor of this building there was a secret department for 50X1-HUM documents such as blueprints and photocopies. On the second floor of this building was the central bookkeeping office. [redacted]

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Point 4b. Shop building. This was a single-story building, approximately 50X1-HUM
40 x 20 x 5 meters, with a sheet-metal roof and a basement. [redacted] the ground floor contained the empennage subassembly shop. From this shop the empennage was sent to the final assembly shop. The basement of this building contained the maintenance shop for the plant's pneumatic equipment; it was equipped with two large spinning lathes and two milling machines. It operated only one shift with approximately 20 workers.

Point 5. Vehicular gate. It was approximately five meters wide and guarded by one female guard armed with a pistol.

Point 6. Small foundry. This was a brick building, approximately 10 x 5 x 5 meters, with an eight-meter-high smokestack. Metal foundrywork was done only on a small scale, i.e., broken down iron pieces. Casting of large parts was done at some other plants unknown [redacted] This foundry employed only five workers working on a one-shift 50X1-HUM schedule.

Point 7. Boiler house. This was a single-story building, approximately 30 x 10 x 8 meters. This was an old boiler house which heated only a part of the plant buildings.

Point 8. Sawmill. This was a wooden shack, approximately 10 x 5 x 5 meters, containing three electric saws which were operated by three workers.

Point 9. Press shop. It was a single-story building, approximately 40 x 10 x 9 meters, with a glass skylight roof. The lower walls (two meters from the ground) were constructed of brick and the upper wall section was of glass. This shop contained one large, 1000-metric ton hydraulic press which was manufactured in England. Various ribs for aircraft wings, stabilizers and fuselages were pressed to the desired shape at this shop. It employed approximately 150 workers during one shift.

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Point 10. Machine shop. This was a single-story brick structure, approximately 30 x 10 x 6 meters, with a sheet-metal roof. [redacted] it was called the machine 50X1-HUM shop.

Point 11. Forge shop. This was a single-story brick structure, approximately 50 x 12 x 9 meters, with a sheet-metal roof. The forge shop contained blanking dies on which the metal materials were manufactured.

[redacted]

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Point 12. Library. This was a brick structure, approximately 6 x 6 x 4 meters. This small library, which was for the plant workers, was supervised by one woman.

Point 13. Air raid shelter. The air raid shelter was under construction and [redacted] only round-shaped reinforced concrete extending 50X1-HUM

about two meters above ground. [redacted] 50X1-HUM [redacted] In December 1956, [redacted] the shelter was still unfinished.

Point 14. Soft drink stand. This was a small wooden structure, approximately 1½ x 1½ x 1½ meters, where soft drinks, cigarettes, and other commodities could be purchased by plant workers. It was operated by one woman.

Point 15. House. This was a single-story structure, approximately 8 x 5 x 4 meters, with sheet-metal roof. It resembled a villa and was surrounded by a small iron fence approximately one meter high. [redacted] 50X1-HUM

Point 16. Administrative building. This was a brick structure, approximately 10 x 3 x 2½ meters, with a sheet-metal roof. In this building all the plant passes were issued and/or replaced. It was operated by a staff of five women.

Point 17. Entrance gates to the plant. Five entrances were used by the workers. They were equipped with turnstiles and guarded by female guards armed with pistols. The entrances were marked off alphabetically, so that individuals whose names began with the letters A to G, for example, used one gate, H to L, another, etc.

Point 18. Aviation Institute building. This was a four-story brick structure, approximately 30 x 6 x 12 meters, with a sheet-metal roof. Although this building was not on the plant territory, it, nevertheless, belonged to the plant. The first floor of this building contained a library for the use of the plant workers. The second floor was occupied by the Aviation Institute, where plant workers could study for their engineering degrees. The institute, which was opened in 1955, offered a five-year course of study. Classes were held only during the evening. The institute was under the Ministry of Aviation 50X1-HUM Industry and admission was limited to plant foremen and senior workers. There were always more applicants than student allocations. [redacted] no [redacted] details concerning the operation of the institute. On the third and fourth floors of the building were dormitories for single women employees of the plant. 50X1-HUM 50X1-HUM

Point 19. Vehicular gate. It was approximately five meters wide, made of iron, and guarded by a woman guard armed with a pistol.

Point 20. Plant garage buildings. These consisted of two single-story, asbestos-roofed, brick buildings, approximately 20 x 20 x 5 meters, on a large square. The mechanics assigned to the garage maintained all the plant's trucks and passenger cars (approximately 200 vehicles). All repair equipment was available at the garage.

Point 21. Machine repair shop. This was a stone structure, approximately 25 x 10 x 6, with a sheet-metal roof. Major repairs and general overhauling of machinery was done in this shop.

Point 22. Plant shop. This was a brick structure, approximately 25 x 10 x 6 meters. Source did not know what kind of work was performed in this shop.

Point 23. Central warehouse. This was a four-story brick structure with a sheet-metal roof, approximately 100 x 18 x 15 meters. Supplies were shipped in by train and truck. Source stated that the warehouse was well stocked with all supplies for the operation of the plant. In one section on the ground floor duralumin sheets were cleaned before they were issued to the various shops.

Point 24. Large new building under construction. At the time source left the plant, the wall and roof of this building had been completed. It was of brick construction, approximately 70 x 70 x 5 meters, with an asbestos roof. [redacted] this building might be used for a galvanizing shop and paint shop. 50X1-HUM

Point 25. Botkinskiy proyezd.

Point 26. Gate. This gate was used only by the directors and foremen of the plant. It was also guarded by an armed female guard.

Point 26a. Plant management building. This was a three-story brick structure, approximately 40 x 10 x 12 meters, with a sheet-metal roof. All the plant administrative functions were carried out in this building by a staff of approximately 600.

Point 27. Vehicular gate. This vehicular gate was approximately five meters wide and was guarded by an armed female guard. Only the plant staff vehicles used this gate.

Point 28. Single-track railroad line. This railroad siding led into the plant from a main railroad [redacted] 50X1-HUM Trains, consisting of two to four cars, used the siding to deliver material to the plant warehouse.

Point 29. Fountain.

Point 30. Main entrance gates. Similar to gates described under point 17 above.

Point 31. Forge shop. This was a single-story brick structure, approximately 90 x 20 x 12 meters, with a sheet-metal roof. This shop contained approximately 20 forging presses and ten electrically heated furnaces. [redacted] The shop employed about 55 workers in one shift. 50X1-HUM

Point 32. Electric substation. This was a brick structure, approximately 7 x 3 x 3 meters, with a sheet-metal roof. This substation received current via high voltage lines from the city electric station. On the plant territory the cables were laid underground. The substation operated on three shifts, with one worker on duty during each shift.

Point 33. Plant machine repair shop. This was a single-story brick structure, approximately 40 x 15 x 5 meters, with a sheet-metal roof. Plant machinery was repaired and overhauled in this shop, which operated in one shift and employed approximately 250 workers.

Point 34. Trade school. This was a three-story brick structure, approximately 60 x 10 x 12 meters, with sheet-metal roof. The entrance to the school was from the Botkinskiy proyezd. The school, which was subordinate to the aviation industry, was for boys and girls between the ages of 14-16 years. The students were taught subjects related to the aviation industry.

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Point 35. The main assembly and subassembly shops. Refer to page 14 sketch of this building.

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Point 36. Tool and die shop. This was a two-story brick structure, approximately 90 x 20 x 10, with a sheet-metal roof. 50X1-HUM The first floor contained a shop in which dies were made. The machinery in the shop 50X1-HUM included two polishing machines, seven planing machines, four lathes, three boring machines, three turret drills, and many work benches. This shop operated in two shifts, employing approximately 80 workers on the first shift and 20 workers on the second shift. Located on the second floor of this building was the plant tool shop. The shop manufactured small tools such as 0.5 mm drills, marking tools, and various other machine tools. This shop also produced tools of special design which were ordered by the plant. The machinery included an unknown number of lathes, turret drills, and polishing, planing, and grinding machines. The tool shop operated on two shifts and employed about 400 workers, with more workers on the first shift than the second.

Point 37. Plant building. This was a two-story brick building, approximately 70 x 12 x 8 meters, with a sheet-metal roof. In this shop various cross sections or angle plates were shaped to the desired form. The shop employed approximately 300 workers during the day shift.

Point 38. New boiler house. This was a brick structure, approximately 40 x 20 x 8 meters, with an asbestos-type roof. This boiler house supplied part of the plant with the needed steam.

Point 39. Storage area. An outdoor storage area, approximately 40 x 5 x 3 meters, covered by a wooden roof. Under this roof, concrete mixing machines were parked to protect them from the elements.

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Point 40. Plant building. This was a three-story brick structure, approximately 55 x 18 x 14 meters, with a sheet-metal roof. all the designs and blueprints for the 50X1-HUM construction of aircraft were made and stored in this building. An estimated 400 employees worked in the building, which operated on a one shift schedule.

Point 41. Fire station. This was a two-story brick structure, approximately 15 x 10 x 9 meters, with a sheet-metal roof. Near the fire station

was an observation tower 15 meters high. This station had two fire trucks and a staff of 15 firemen who worked in three shifts around the clock.

Point 42. Alcohol storage house. This was a brick structure, approximately 4 x 4 x 3 meters, with a sheet-metal roof. This structure was constantly guarded: during the day, by a plant guard and at night, by a police dog. [redacted] the constant guard was maintained to prevent workers from stealing bottles of alcohol. 50X1-HUM

Point 43. Sewing shop. This was a brick structure, approximately 60 x 15 x 5 meters, with a sheet-metal roof. All the necessary items for the interior of the aircraft, such as seat linings and safety belts, were produced in this shop. It contained a large number of sewing machines, and operated in two shifts.

Point 44. Fence. Refer to point 2 above.

Point 45. Shipping station. This was a railroad platform, approximately 50X1-HUM 20 x 15 x 5 meters, with a sheet-metal roof. Products from the plant were shipped from this station to various destinations [redacted] It had one large traveling crane for loading heavy items. The shipping station operated only during the daytime. 50X1-HUM

Point 46. Entrance gate. This gate, used by plant workers, was guarded by an armed female guard.

Point 47. Entrance gate for vehicles. This gate was approximately four meters wide. It was controlled by the guard stationed at the adjacent workers' entrance gate.

Point 48. Fence. This fence surrounded a little working compound, which was also a part of the Airframe Plant No. 30. Refer to point 2 above for further description.

Point 49. Foundry. This was a brick structure, approximately 70 x 22 x 6 meters, with a sheet-metal roof. This foundry contained approximately 15 electric furnaces in which duraluminwas melted. The materials for the foundry came from various unnamed plants, and the scrap, from shops in Airframe Plant No. 30. The metal was smelted at a temperature of approximately 700 degrees Centigrade. The foundry worked in two shifts and employed approximately 250 workers on the first shift and 100 workers on the second. Throughout the night, a working force of six men kept the furnaces burning.

Point 50. Greenhouse. This was a glass structure, approximately 35 x 15 x 4 meters, with a glass roof. The greenhouse supplied the plant workers with fresh vegetables throughout the year.

Point 51. Utility shop (sherpotreb). This was a brick structure, approximately 35 x 15 x 4 meters, with sheet-metal roof. This shop produced furniture and household wares, such as iron beds, baby carrieges, spoons, knives, forks, pots and pans, and children's sleds and skates. The shop operated on two shifts, employing about 380 50X1-HUM workers on the first shift and 230 workers on the second. [redacted]

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Point 52. Central airfield. observed various transport-type aircraft and, on a few occasions, unknown type twin-jet bombers on the field. they were produced at the plant. 50X1-HUM

Layout of Shops in the Main Building

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2. Reference is made to page 14, sketch of the main assembly and subassembly shops building. This was a large stone structure, approximately 700 x 500 x 7 meters, with a saw-tooth-type glass skylight roof. The main assembly building contained many supporting type shops in addition to the 50X1-HUM shop where the final assembling was done. in the jig assembly shop in this building in 1951 twin-jet bombers were produced. 50X1-HUM

Point 1. Compressor station. This compressor station supplied the entire plant with compressed air.

Point 2. The 53rd Jig construction shop. This shop manufactured all types of jigs (wing, fuselage, and tail assembly jigs), dollies for transporting aircraft fuselages and wings, and other aircraft component parts. The shop contained the following machines; two horizontal and two vertical grinding machines; 15 lathes; 25 small and two large planing machines; four milling machines (two horizontal and two vertical); three boring machines; and a 5000-kilogram traveling crane. The shop, moreover, had a welding section which had about 25 electric welding machines. The material for the construction of jigs and dollies came from the main warehouse in various forms of rolled stock. This shop employed approximately 480 workers. Some sections in this shop worked in three shifts.

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Point 3. Landing gear assembly shop (old shop No. 14). This shop manufactured the complete landing gear assembly, the shop made the landing gear from start to finish. The ball bearings and rubber tires were supplied by unknown plants.

Point 4. The 11th machine shop (old shop No. 2). This shop manufactured small aircraft parts for the subassembly and final assembly lines. It contained the following machines: approximately five lathes, 18 turret-type lathes, ten horizontal milling machines, eight vertical milling machines, 13 drilling machines, and two polishing machines. The shop operated on three shifts and employed approximately 80 workers on each shift.

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Point 5. The automatic machine shop (old shop No. 21). This shop manufactured all types of bolts, screws, rivets, pins, and washers. There were approximately 20 semi-automatic machines and five automatic riveting machines. The shop operated on three shifts, with 30 workers per shift.

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Point 6. Instrument panel shop. [redacted] it manufactured aircraft instrument panels. 50X1-HUM

Point 7. Paint shop (old shop No. 33). This shop painted and dipped various parts in an anti-corrosive solution before the parts were sent to the assembly lines. [redacted] the shop operated on a three shift basi 50X1-HUM

Point 8. Rubber-preparation shop. This shop prepared rubber parts and dispatched them to the assembly lines. [redacted]

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Point 9. Fuselage assembly shop (old shop No. 32). This shop received the fuselages in a semi-assembled form with only the main longerons fastened to the bulkheads. The final assembly of the fuselages was done in this shop. The fuselages were placed on jigs, which were fastened to the concrete floor of the shop. Then the skin was riveted to the fuselage frame by automatic riveting guns. After assembly, the fuselage was lifted by crane, placed on a dolly (see point 9b), and rolled out to the main assembly shop by workers. Insofar as source could recall, only three fuselages were built simultaneously. As soon as one fuselage assembly was completed, work on another one was begun. The shop obtained the needed duralumin sheets from the main warehouse and cut them to the appropriate size by electrically-operated cutting machines. The shop operated in two shifts and employed approximately 400 workers per shift.

Point 9a. Jig stands for three fuselages in a single file.

Point 9b. Location of the overhead crane which was used for loading the fuselage on the dolly.

Point 10. Wing assembly shop. The duralumin skin for the wings, which was obtained from the main warehouse, was cut to exact size by electric cutters.

Point 10a. Location of four wing assembly jigs, set up in horizontal position, for assembling the wing longerons.

Point 10b. Location of the vertical wing jigs on which the duralumin skin was riveted to the wing frames.

Point 10c. At this point the final assembly of the wing was performed and the wing ailerons and tabs were also fastened to the wing at this stage. After it was assembled, the wing was placed on a dolly by crane and transported to the final assembly shop. This section operated on two shifts, with approximately 450 workers per shift.

Point 11. Final assembly shop (old shop No. 12). The final assembly shop was considered a secret shop and workers from other shops needed a special pass to enter it. The shop entrances were constantly guarded by armed industrial guards. [redacted]

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3. Plant Operational Data

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The Airframe Plant No. 30 produced aircraft of Ilyushin design. Up to 1949 the plant produced a twin-engine bomber of IL design. it had conventional type engi- 50X1-HUM
The production of the aforementioned type of aircraft phased out toward the end of 1949, when the production of jigs was started for another jet-type bomber of Ilyushin design.

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this particular aircraft was designated as Article 5 (Izdeliye-5). Other aircraf 50X1-HUM
designated as IZ-2A and IZ-3A The armament for this bomber consisted of fo 50X1-HUM
machine guns, two located on the aircraft nose section and two in the rear gunner's compartment. 50X1-HUM
the bomber had a three or four man crew. maximum production rate was two aircraft in a 24-hour period. The production of the twin-jet bombers began in 1950 and continued until 1954 or 1955. After the production of bombers was phased out the plant began producing IL-type transport aircraft Airframe Plant No. 30 also repaired Ilyushin-type transport aircraft which were flown to the plant and landed at the plant airfield. 50X1-HUM
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4. Jig Construction

The various jigs for aircraft construction were made in shop No. 8. The blueprints for the jigs were made by the plant engineering-designing section. Other plants (names and locations unknown) supplied the jig construction material such as tubular and rolled steel. Occasionally there was a shortage of jig construction steel and the shop was obliged to use used parts of old disassembled jigs. The wing, fuselage and other jig parts were welded together by electric welding machines. At shop No. 8, the jigs were assembled, using sample mock-ups for proper form and dimensions. The fuselage and wing jigs were then forwarded to the respective assembly shops where they were aligned by means of optical leveling instruments. Vertical alignment was assured by using a plumb bob. the tolerance for the wing and fuselage jigs was one tenth of a millimeter. The construction of new jigs for the twin-jet bomber began in October 1949. the period of change- 50X1-HUM
over from one type of aircraft to another at six months. During the change- 50X1-HUM
over period, the labor force in the jig construction shop was increased considerably by workers from other shops in the plant. This shop was renumbered as shop No. 53.

5. Aircraft Testing

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Ground testing of engines and other equipment was done near the final assembly shop. Military representatives from the Soviet Air Force conducted the final inspection prior to accepting or rejecting the aircraft. the twin-jet bomber aircraft were not flight-tested at the plant airfield. Aircraft which had been accepted were disassembled into three sections (the fuselage, the wings, and the empennage) and each section then packed in crates 50X1-HUM

and transported by railroad flat cars to an unknown airfield for re-assembly and flight-testing. The older Ilyushin-type transport aircraft which were brought in for repair were flight-tested at the plant airfield after being repaired.

6. General Information

In 1950, the small aviation plant located next to Leningradskoye shosse was merged with Plant No. 30. During the same year, series production of the turbo-jet bomber was begun and Plant No. 30 was expanded. Following the merger, all the shops in the plant were renumbered. Toward the end of 1956 the plant would close down or it would manufacture busses instead of aircraft. Although there were many complaints from people living near Airframe Plant No. 30, and especially from the management of the Botkinskiy Hospital, the plant did not cease its construction activity.

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7. Labor Force

The plant employed an estimated 7000 workers, two percent of whom were specialized in aircraft construction. Twenty percent of the total were office and administrative personnel. The plant operated on a three-shift schedule but this varied, since some of the shops worked only one or two shifts. The first shift worked from 0730 to 1615, the second, from 1615 to 0045, and the third, from 0045 to 0730 hours. The majority of employees worked on the day shift.

8. Security Measures

The entire plant was surrounded by a fence, which was guarded at night by police dogs tied to a wire attached to the fence. The plant's security force consisted mostly of women who wore typical Soviet uniforms and were armed with revolvers or pistols. The plant's industrial guards were commanded by men who wore Soviet army uniforms without shoulder boards. The security guards numbered about 75, including both men and women. They worked in shifts, with 25 on duty during each shift.

9. Plant Pass

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(Refer to sketch of pass on page 15.) Prior to 1954 the workers had to surrender their passes on leaving the plant, but in 1954 a change was instituted and they were permitted to take them home. The color of the pass seldom changed. A red stripe across the inside indicated that an employee was permitted to enter secret shops.

Personalities

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10. Voronin, Pavel Andreyevich. He was the director of Plant No. 30. Up to 1954 he wore the uniform of a major general of the Soviet Air Force, but after 1954, he wore civilian attire.

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11. Fedorov (fnu), the assistant director of Plant No. 30.

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12. Moyseyev, Ivan Ivanovich, chairman of the plant Sovkom

13. Vakhovskiy, Mikhail Aronovich, chief of the general utilities shop (sherpotreb).

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14. Kabakov, Ivan D., assistant to the chief of the general utilities shop (sherpotreb).

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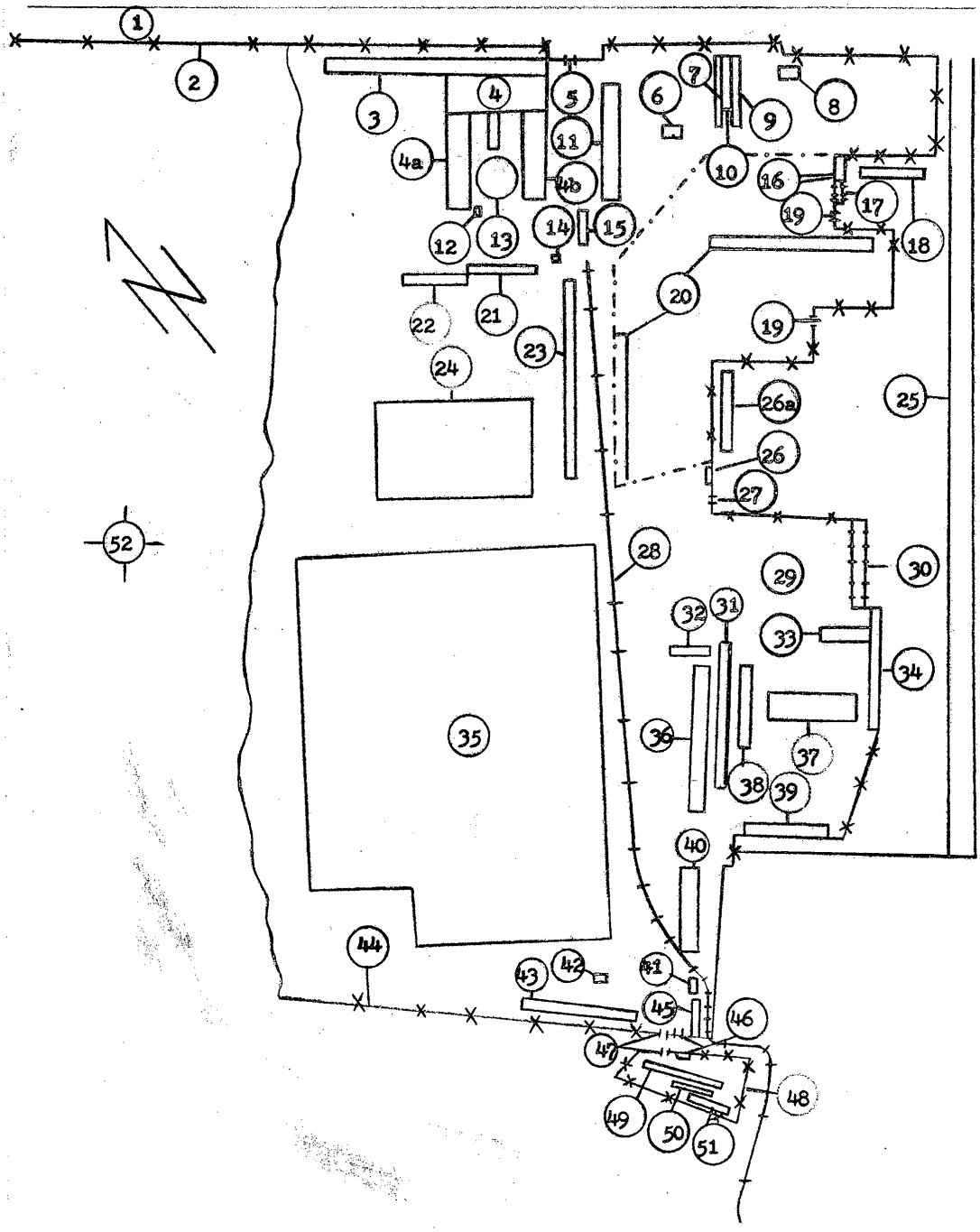
Sketch of Airframe Plant No. 30 Layout 50X1-HUM



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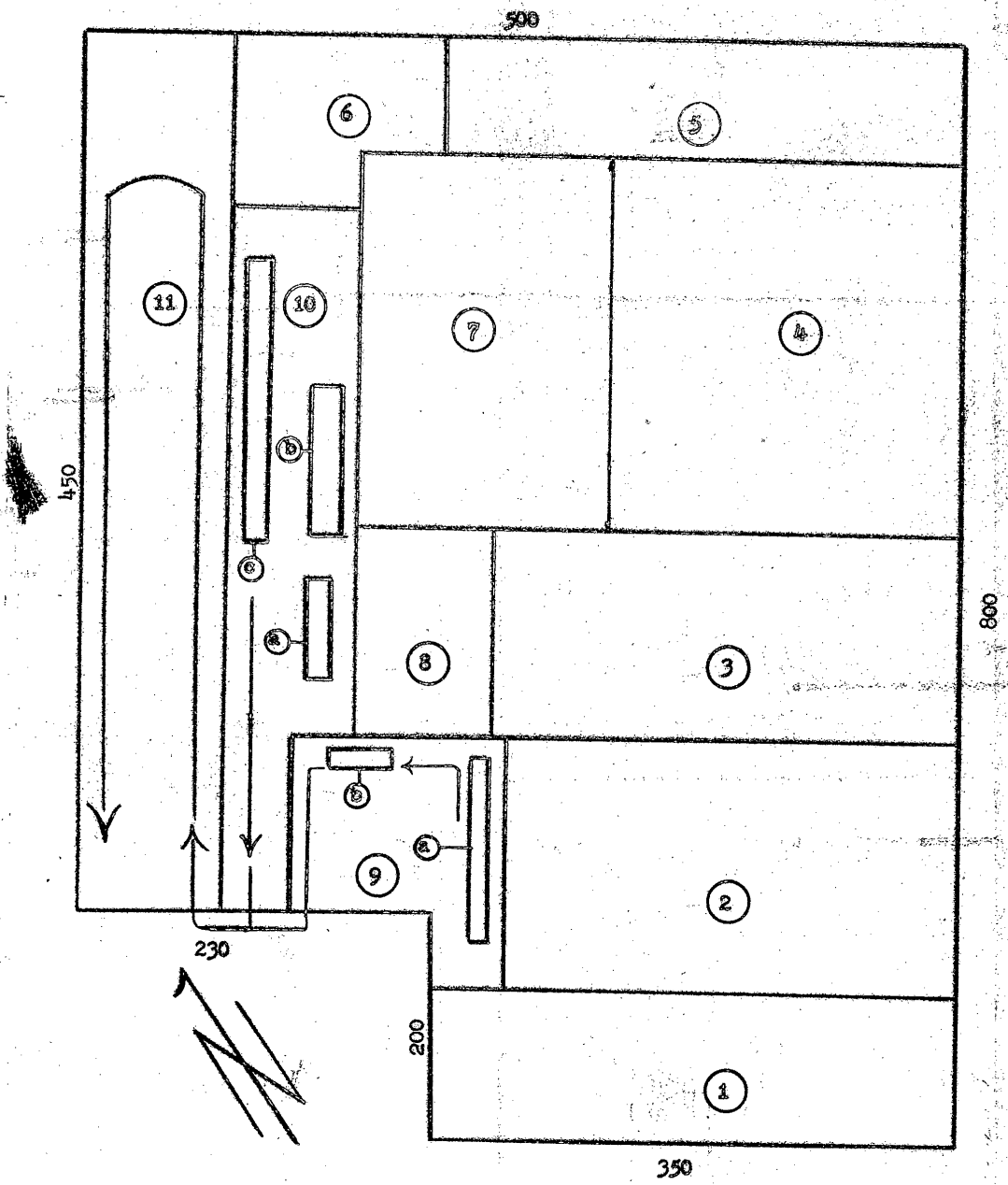
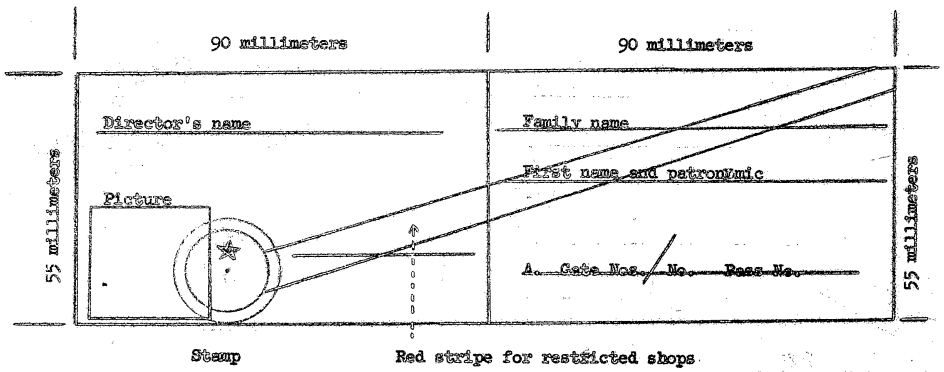
Sketch of Main Assembly and Subassembly Shops in Airframe Plant No. 30



Source's Memory Sketch of Pass Used in Airframe Plant No. 30

Unfolded Pass for Plant No. 30



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